

Product datasheet for **MR207897**

Sesn1 (NM_001013370) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sesn1 (NM_001013370) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sesn1
Synonyms:	1110002G11Rik; AU044290; Pa26; Sest1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR207897 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCGCCTGGCCCGCGTGAACGAGGCGTACGCAGCCTCGCTGGCTGTCTCCGAGCTGCTGAGCTGCC
 ACCAGTGCGGCGGGACCGGCCAGGACGAGGAATTGGAATCAGAATCCCTCGGCCACTAGGACACGG
 ACCAAGCAGGTTCCAGAGAAAGGAGATGCTGCAGGTGGCAGTGAAGACGCACAGATGCATGCGTTA
 TTTGCAGACTCCTTTGCTGCTTTGGGTCGCTGGATAACATCACATTAGTGATGGTTTTCCATCCACAAT
 ATTTAGAAAGTTCTTAAAGACTCAACTACCTACTACAAATGGATGGGCCATTACCCCTCATTATCG
 GCACTACATTGGAATCATGGCGCAGCGAGGCATCAGTGTTCCTACCTGGTGAATCTGCATGTCAGTGAC
 TTTCTTATGTTGGTGGGACCCCAAGTGGCTCAATGGTTAGAGAATGCTCCTCAAAAAGTGCAGAACT
 TAGGAGAACTTAACAAAGTGTAGCCCATAGGCCCTGGCTGATTACCAAAGAACATATCGAGGGCCTTCT
 GAAAGCAGAGGAGCACAGCTGGTCTCTCGCCGAGCTGGTCCATGCCGTGGTTCTGCTCACACACTACCAC
 TCTCTTGCTCCTTACATTTGGCTGTGAATTAGTCCAGAGATTCATTGCGATGGTGGCCACACCTTCA
 GACCGCCTTCTGTTAGTAACTACTGCATCTGTGACATTACAAATGGCAATCACAGTGTGGATGAGATGCA
 AGTCAACTCAGCAGGAAATGCTTCGTAAGTGATTCTTCTTTGAGGTGGAAGCTCTCATGGAAAAGATG
 AGGCAGTTACAGGAATGCCGAGAGGAGGAGGAGGCTAGCCAGGAGGAGATGGCGTCGCGGTTTGAGATGG
 AAAAGAGAGAGAGCATGTTTGTCTTCTTTCGGACGATGATGAAGTTACACCAGCAAGAGATGTGTCTCG
 GCATTTGAGGACACTAGTTACGGCTACAAGGATTTCTCCAGACACGGGATGCATGTCCCAACGTTTCGT
 GTCCAGGACTACTGCTGGGAAGACCATGGTTACTCTCTGGTGAATCGTCTCTATCCAGATGTGGACAGT
 TAATTGATGAGAAATTTACATCTCTTACAATCAACTACAATCACTATGCCATGCACAAGATGTTGA
 TACCTCAATGCTCAGACGGGCTATCTGGAATATATCCACTGCATGTTTGAATACGATACGACGACTAT
 GACTATGGGAAATTAACCAGCTGCTGGATCGTAGCTTTAAAGTTTACATCAAAAACCGTCTGTGCACTC
 CTGAAAAGGTTACAAAAGGATGTATGACAGCTTCTGGAGGCAGTTCAAGCACTCTGAGAAGGTCCATGT
 TAATCTGCTTCTATAGAAGCTAGGATGCAAGCAGAACTCTGTATGCTCTGAGAGCCATTACCCGGTAT
 ATGACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207897 protein sequence
 Red=Cloning site Green=Tags(s)

MRLAAASNEAYAASLAVSELLSCHQCGDRGQDEELGIRIPRPLGHGPSRFIPEKEMLQVSEDAQMHAL
 FADSFALGRLDNITLVMVFHPQYLESFLKTQHYLLQMDGPLPLHYRHYIGIMAAARHQCSYLVNLHVSD
 FLHVGGDPKWLNGLENAPQKLQNLGELNKVLAHRPWLITKEHIEGLLKAEHWSLAELVHAVVLLTHYH
 SLASFTFGCGISPEIHCDDGGHTFRPPSVSNYICDITNGNHSVDEMQVNSAGNASVSDSFFVEALMEKM
 RQLQECREEEEEASQEEMASRFEMEKRESMFVSSDDDEVTPARDVSRHFEDTSYGYKDFSRHGMHVPTFR
 VQDYCWEDHGYSLVNRLYPDVGQLIDEKFIHPYNLTNTMAMHKDVDTSMRLRAIWNWIHCMFGIRYDDY
 DYGEINQLLDRSFKVYIKTVVCTPEKVTKRMYSFWRQFKHSEKVHVNLLLIEARMQAELLYALRAITRY
 MT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001013370

ORF Size: 1479 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001013370.1](#), [NP_001013388.1](#)

RefSeq Size: 2612 bp

RefSeq ORF: 1479 bp

Locus ID: 140742

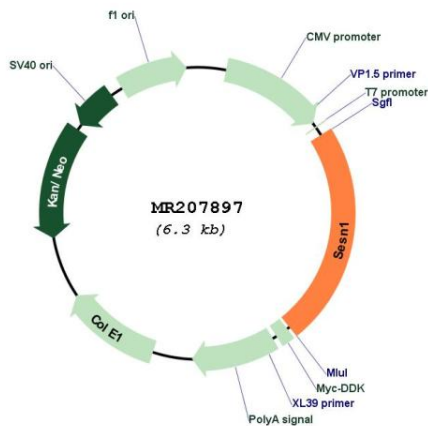
UniProt ID: [P58006](#)

Cytogenetics: 10 22.77 cM

MW: 56.7 kDa

Gene Summary: Functions as an intracellular leucine sensor that negatively regulates the TORC1 signaling pathway through the GATOR complex. In absence of leucine, binds the GATOR subcomplex GATOR2 and prevents TORC1 signaling. Binding of leucine to SESN2 disrupts its interaction with GATOR2 thereby activating the TORC1 signaling pathway (PubMed:25259925). This stress-inducible metabolic regulator may also play a role in protection against oxidative and genotoxic stresses. May positively regulate the transcription by NFE2L2 of genes involved in the response to oxidative stress by facilitating the SQSTM1-mediated autophagic degradation of KEAP1. May have an alkylhydroperoxide reductase activity born by the N-terminal domain of the protein. Was originally reported to contribute to oxidative stress resistance by reducing PRDX1. However, this could not be confirmed (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207897